Notice of Allowability	Application No.	Applicant(s)
	09/633,633	BROWN ET AL.
	Examiner	Art Unit
	John Q. Chavis	2124

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address*--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *papers filed 4-29-03*.

2. ☒ The allowed claim(s) is/are *1-16*.

3. ☒ The drawings filed on *07 August 2000* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____.

5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    (a) ☐ The translation of the foreign language provisional application has been received.

6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

8. ☐ CORRECTED DRAWINGS must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No. _____.

    (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.

    (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1 ☐ Notice of References Cited (PTO-892)

3 ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

5 ☒ Information Disclosure Statements (PTO-1449), Paper No. *2,5*.

7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

2 ☐ Notice of Informal Patent Application (PTO-152)

4 ☐ Interview Summary (PTO-413), Paper No. _____.

6 ☒ Examiner's Amendment/Comment

8 ☒ Examiner's Statement of Reasons for Allowance

9 ☐ Other _____.

Application/Control Number: 09/633,633

Art Unit: 2124

1.   A copy of IDS papers 2 and 5 is hereby provided; paper 4 is merely a duplicate of paper 5.

2.   The examiner has also approved the newly amended abstract.

EXAMINER'S AMENDMENT

3.   An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lawrence Graham on 6-26-03.

This amendment cancels lines 9-13 on page 5 beginning with "Figure 1 is a system integration map of a motion control system…" and insert therefor attachment pages 5A and 5B.

Reason for Allowance

4.   The following is an examiner's statement of reasons for allowance: the closest prior art reference of record is the patent to Brown, cited in the previous action. The terminal disclaimer provided on 4-29-03 has overcome the double patenting rejection in view of Brown.

5.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

Application/Control Number: 09/633,633

Art Unit: 2124

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Q. Chavis whose telephone number is 703-305-9665. The examiner can normally be reached on 8:30 am-5:00 pm Est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 703-305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3900.

Jqc
June 27, 2003

JOHN CHAVIS
PATENT EXAMINER
ART UNIT 2124

FIG. 1A-1F is a system interaction map of a motion control system constructed in accordance with, and embodying, the principles of the present invention;

FIG. 2 is a module interaction map of a motion control component of the system shown in FIG. 1;

FIG. 3 is an object interaction map of the component shown in FIG. 2;

FIGS. 4 through 8 are scenario maps of the component shown in FIG. 2;

FIG. 9 is an interface map of the component shown in FIG. 2;

FIG. 10 is a data map showing one exemplary method of accessing the data necessary to emulate extended driver functions using core driver functions;

FIG. 11 is a module interaction map of the driver portion of the system shown in FIG. 1;

FIG. 12 is an object interaction map of the driver portion shown in FIG. 11;

FIGS. 13 through 20 are scenario maps related to the driver shown in FIG. 11;

FIG. 21 is an interface map for the driver shown in FIG. 11;

FIG. 22 is a module interaction map of the streams used by the system shown in FIG. 1;

FIG. 23 is an object interaction map of the streams shown in FIG. 22;

FIGS. 24 through 32 are scenario maps of the streams shown in FIG. 22;

FIG. 33 is an interface map of the objects comprising the stream shown in FIG. 22;

FIG. 34 is a module interaction map of the driver stub portion of the system shown in FIG. 1;

FIG. 35 is an object interaction map of the driver stub shown in FIG. 34;

FIGS. 36 through 38 are scenario maps of the driver stub shown in FIG. 34;

FIG. 39 is an interface map of the driver stub portion shown in FIG. 34;

FIG. 40 is a module interaction map of the driver administrator portion of the system shown in FIG. 1;

FIG. 41 is an object interaction map of the driver administrator shown in FIG. 40;

FIGS. 42 through 49 are scenario maps relating to the driver administrator shown in FIG.

(Page 5B)

40;

FIG. 50 is an interface map of the objects that comprise the driver administrator shown in FIG. 40;

FIG. 51 is a module interaction map of the driver administrator CPL applet portion of the system shown in FIG. 1;

FIG. 52 is an object interaction map of the driver administrator CPL applet shown in FIG. 51;

FIGS. 53 through 57 are scenario maps related to the driver administrator CPL applet shown in FIG. 51;

FIG. 58 depicts a Module Interaction-Map showing all binary modules that interact with the driver and how they interact with one another;

FIG. 59 depicts an Object Interaction-Map which corresponds to the module interaction map of FIG. 58 expanded to display the internal C++ objects making up the language driver 44, and how these objects interact with one another;

FIGS. 60-65 depict a number of Scenario Maps that display the interactions taking place between the C++ objects involved during certain processes;

FIG. 66 depicts an interface map that describes the interfaces exposed by the language driver component 44, all data structures used, and the definitions of each C++ class used; and

FIG. 67 depicts a table illustrating how a typical database employed by the language driver 44 may be constructed.